20100730*0300102

FIG. 1

20100108780

FIG. 2

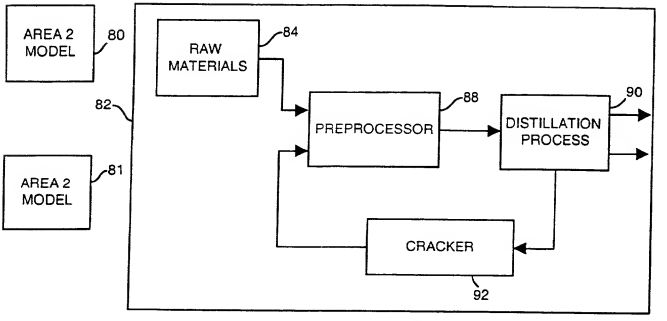

FIG. 3

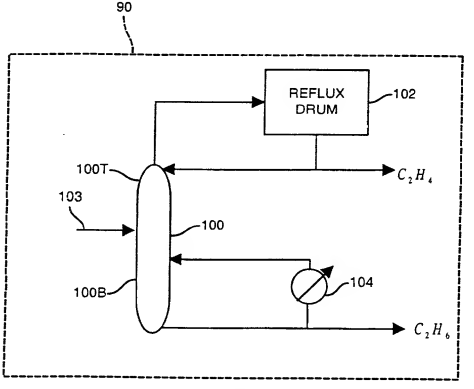

FIG. 4

20100230808 A1 2010-08-12

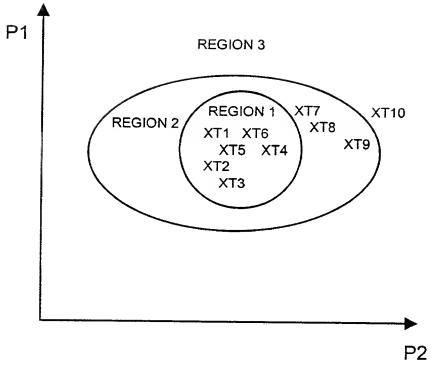

FIG. 5

10087308 - 030102

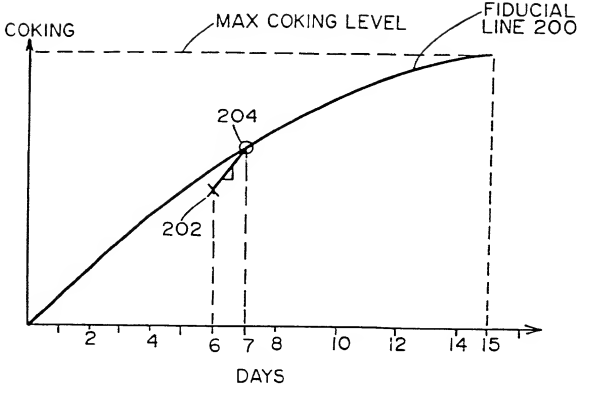

FIG. 6

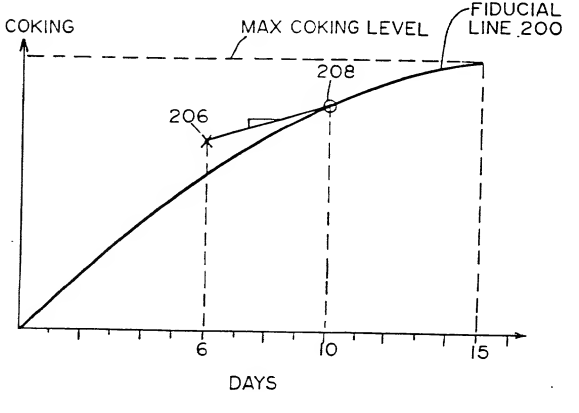

FIG. 7

10087308.030102

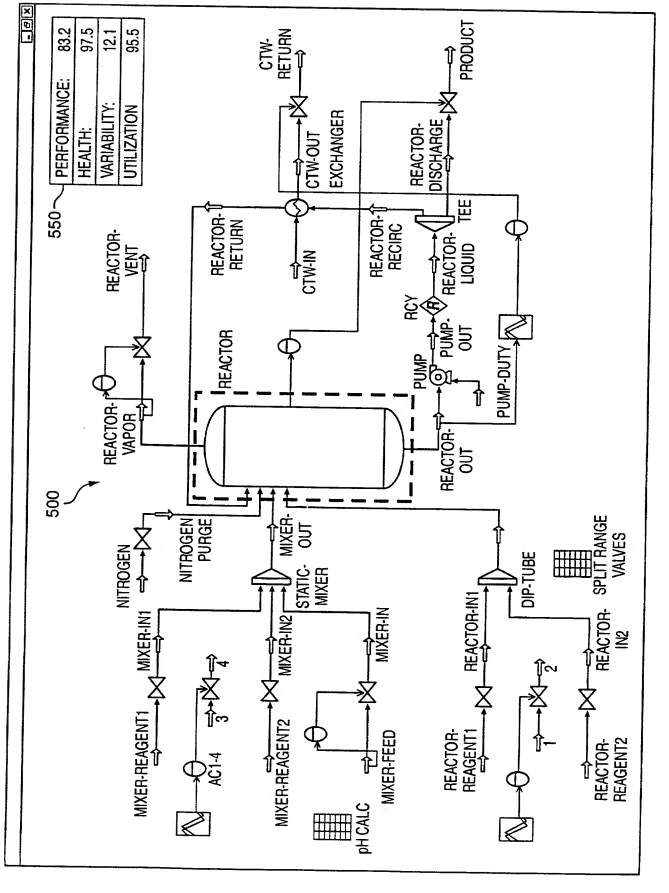

FIG. 8

20100830 08/800,1

	PI	VI	HI	UI
Unit	x		x	x
Sub Unit	x		x	x
Loop		x	x	x
Device		x	x	

FIG. 9

10087308 "030102

PERFORMANCE FOR FCCU: 83.2

575

Loop Name	Index	Weight
FIC-101	88	3
TIC-111	89	3
LIC-111	88	3
FIC-111	60	3
FIC-112	80	1
TCI-222	87	1
FIC-101	88	3
TIC-111	89	3
LIC-111	88	3
FIC-111	60	3
FIC-112	80	1
TIC-222	87	1
PIC-111	87	1

FIG. 10

20100308001

10087308 - 030102

FCCU Health: 97.5

Device Name	Index	Description	Weight
FV-111	100	Leaking	3
TI-111	98	Sticktion	3
LI-111	90	40	3
MC-101	95	Will burn up in 2 weeks	3
FV-111	96	0	1

FIG. 11

FCCU Variability: 12.1

Device Name	Index	Weight
FV-101	0	3
TI-111	2	3
LI-111	40	3
FV-111	0	3
FV-112	0	1
TI-222	2	1
FI-101	7	3
TI-111	6	3
LI-111	7	3
FI-111	7	3
FI-112	7	1
TI-222	7	1
Sub unit: Reboiler RB101	15	2

FIG. 12

10087308.030102

20T0E0' 80E780DT

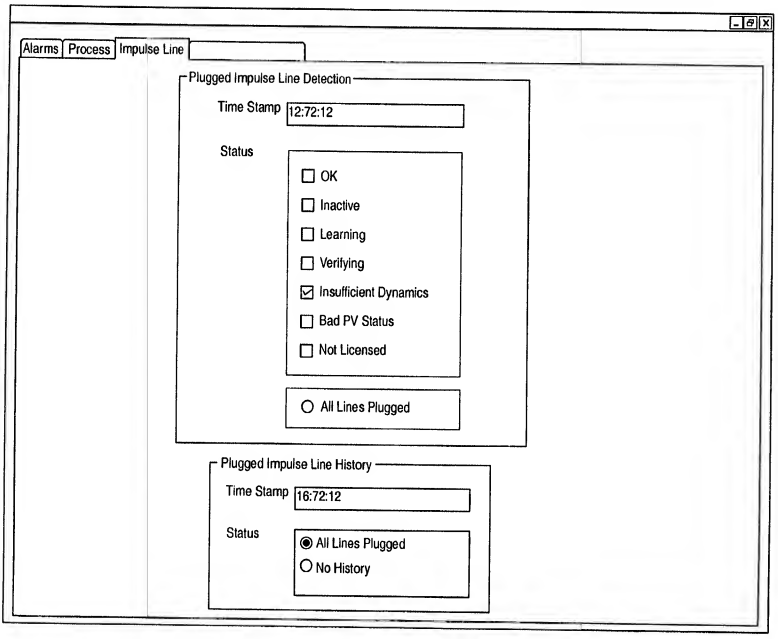

FIG. 13

Inventor(s): Eryurek, et al.
Figure No(s): 13
Sheet No.: 11 of 29

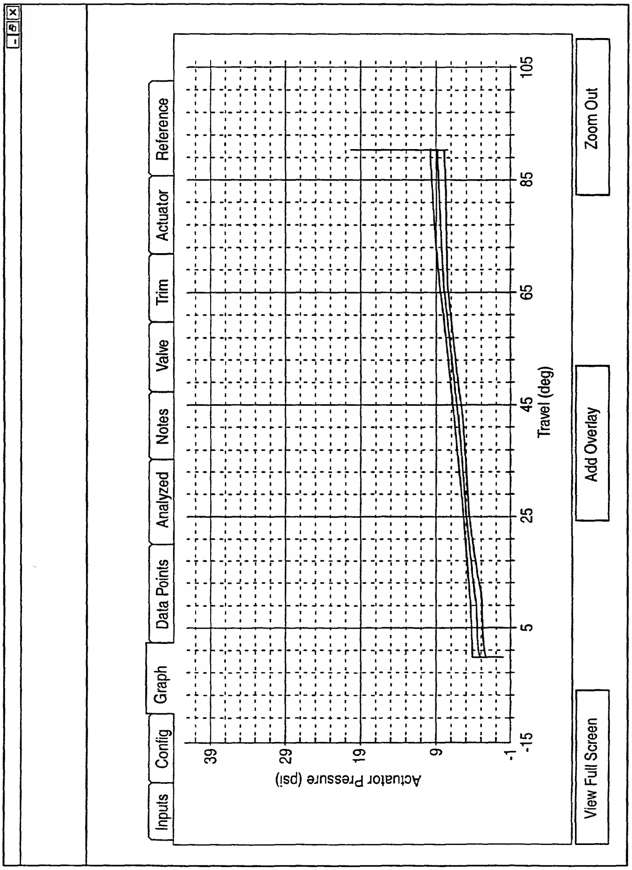
Inputs
Config
Graph
Data Points
Analyzed
Notes
Valve
Trim
Actuator
Reference
Actuator Pressure (psi)
39
29
19
9
-1
-15
5
25
45
65
85
105
Travel (deg)
View Full Screen
Add Overlay
Zoom Out

FIG. 14

20T0E0" 80E/800T

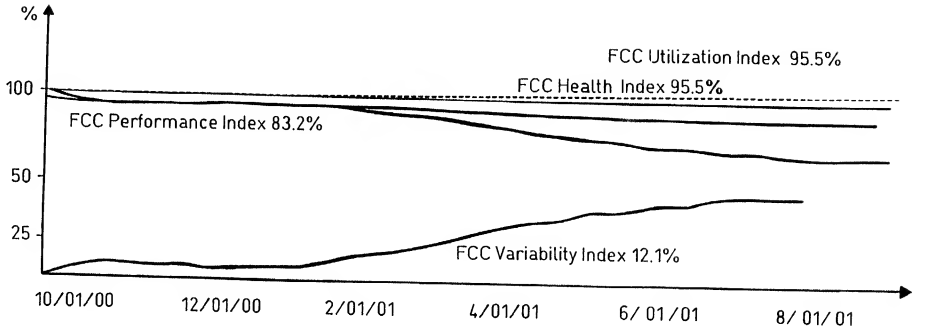

FIG. 15

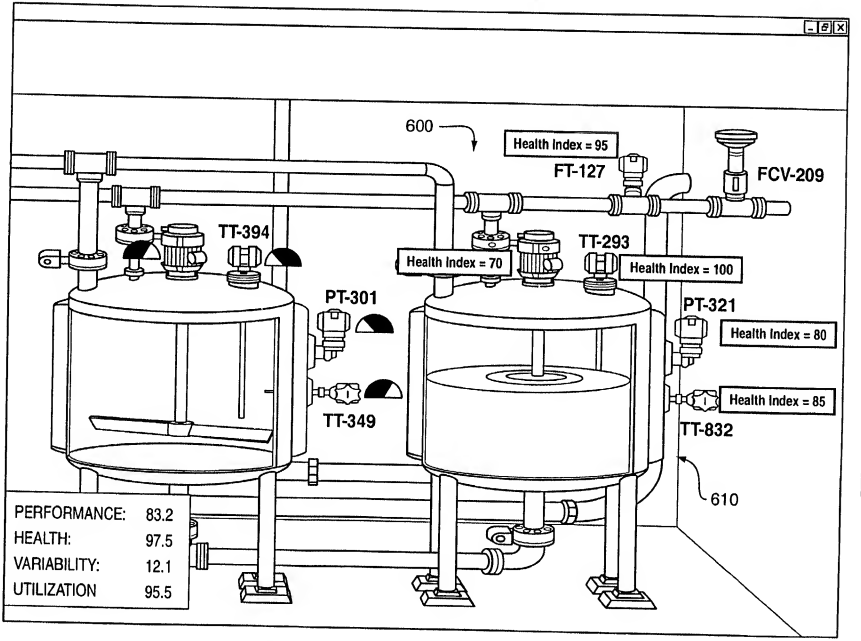
600
Health Index = 95
FT-127
FCV-209
TT-394
TT-293
Health Index = 70
Health Index = 100
PT-301
PT-321
Health Index = 80
Health Index = 85
TT-349
TT-832
610
PERFORMANCE: 83.2
HEALTH: 97.5
VARIABILITY: 12.1
UTILIZATION 95.5

FIG. 16

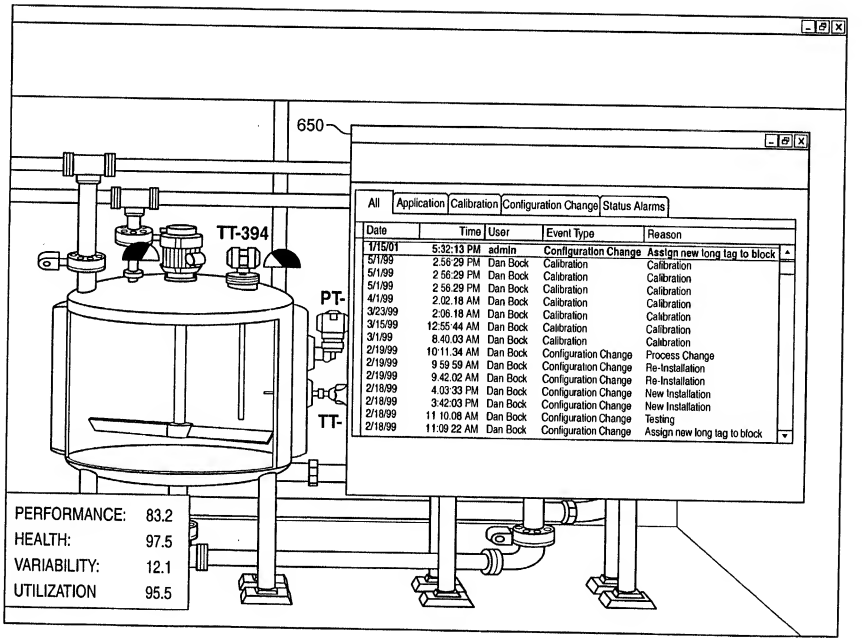
650
TT-394
PT-
TT-
All
Application
Calibration
Configuration Change
Status Alarms
Date
Time
User
Event Type
Reason
1/15/01 5:32:13 PM admin Configuration Change Assign new long tag to block
5/1/99 2:56:29 PM Dan Bock Calibration Calibration
5/1/99 2:56:29 PM Dan Bock Calibration Calibration
5/1/99 2:56:29 PM Dan Bock Calibration Calibration
4/1/99 2:02.18 AM Dan Bock Calibration Calibration
3/23/99 2:06.18 AM Dan Bock Calibration Calibration
3/15/99 12:55:44 AM Dan Bock Calibration Calibration
3/1/99 8:40.03 AM Dan Bock Calibration Calibration
2/19/99 10:11.34 AM Dan Bock Configuration Change Process Change
2/19/99 9:59:59 AM Dan Bock Configuration Change Re-Installation
2/19/99 9:42.02 AM Dan Bock Configuration Change Re-Installation
2/18/99 4:03:33 PM Dan Bock Configuration Change New Installation
2/18/99 3:42:03 PM Dan Bock Configuration Change New Installation
2/18/99 11:10:08 AM Dan Bock Configuration Change Testing
2/18/99 11:09:22 AM Dan Bock Configuration Change Assign new long tag to block
PERFORMANCE: 83.2
HEALTH: 97.5
VARIABILITY: 12.1
UTILIZATION 95.5

FIG. 17

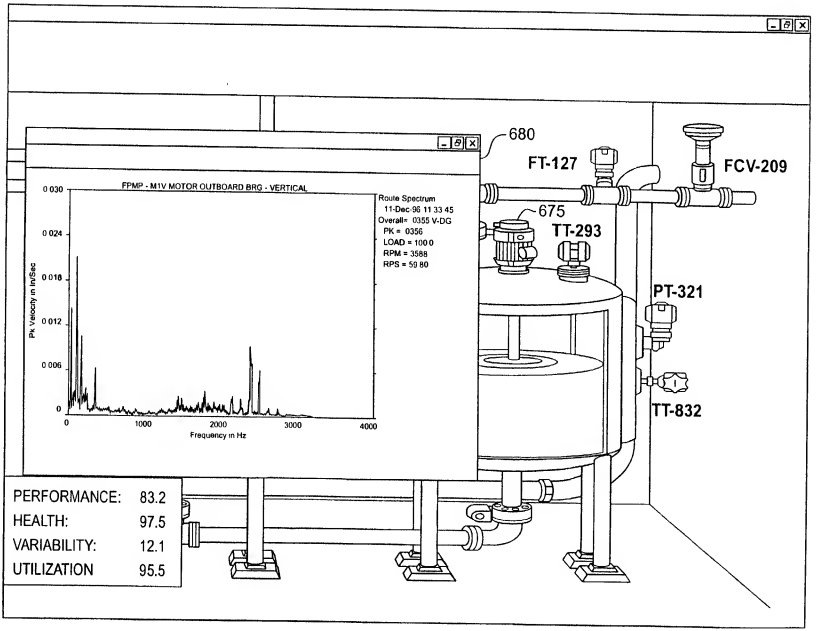

FIG. 18

Inventor(s): Eryurek, et al.
Figure No(s).: 18
Sheet No.: 16 of 29

20T0E0"8DE78007

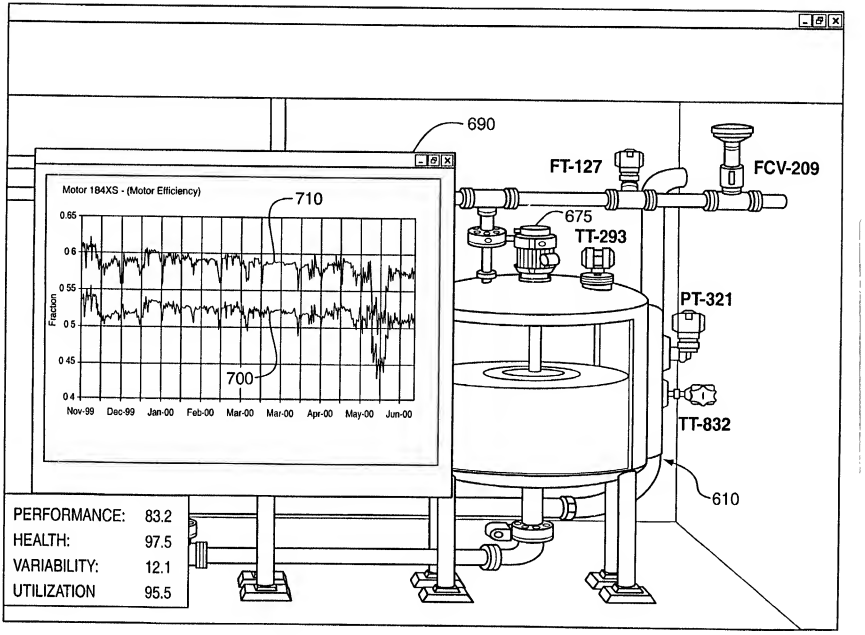

FIG. 19

Inventor(s): Eryurek, et al.
Figure No(s).: 19
Sheet No.: 17 of 29

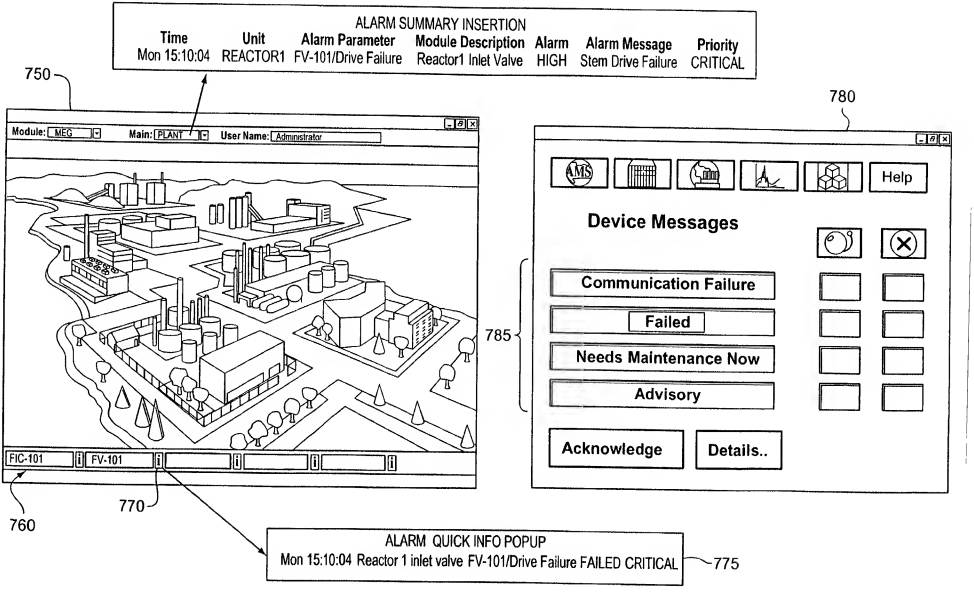

FIG. 20

Inventor(s): Eryurek, et al.
Figure No(s).: 20
Sheet No.: 18 of 29

20080730.0300

FIG. 21

Help
Failed
Maint
Advisory
Sensor Failure
Impulse Lines Plugged
Electronics Failure
Help
Device Messages
Communication Failure
Failed
Needs Maintenance Now
Advisory
Acknowledge
Details..

FIG. 22

20T0E0' 80E780OT

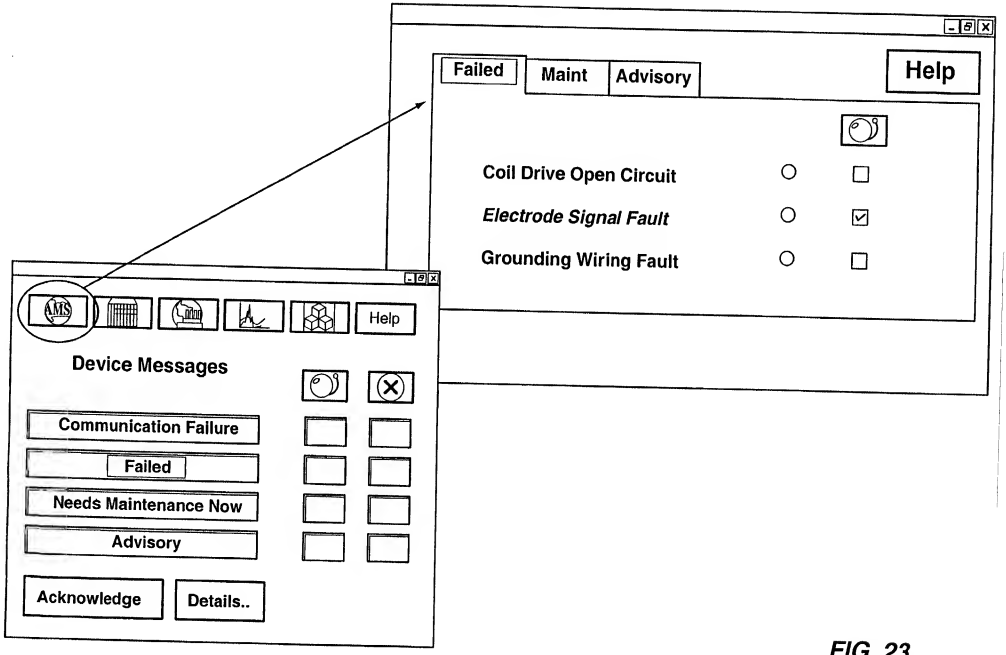

FIG. 23

Inventor(s): Eryurek, et al.
Figure No(s).: 23
Sheet No.: 21 of 29

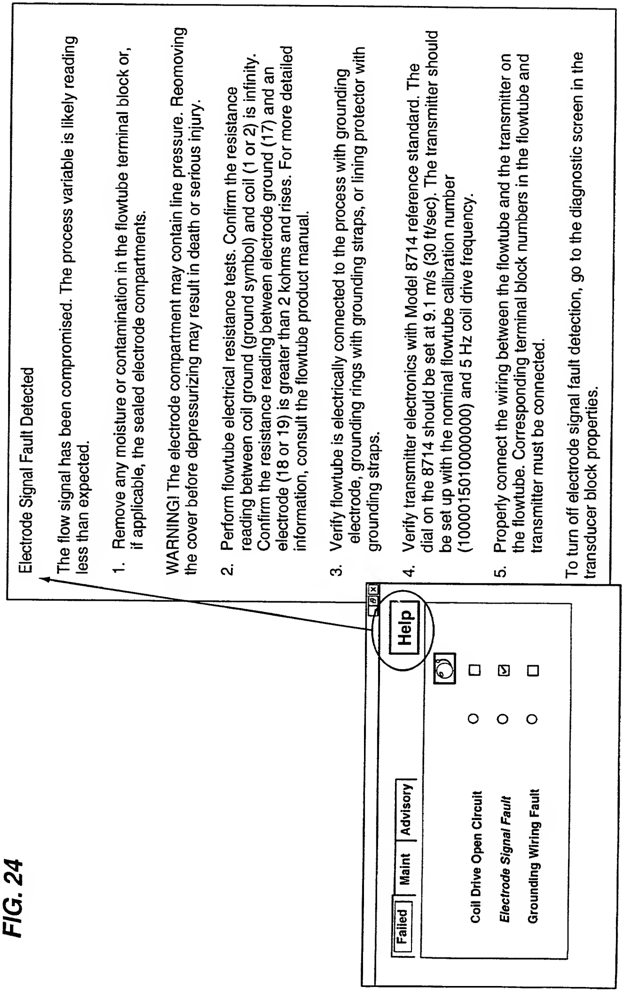
Electrode Signal Fault Detected
The flow signal has been compromised. The process variable is likely reading less than expected.
1. Remove any moisture or contamination in the flowtube terminal block or, if applicable, the sealed electrode compartments.
WARNING! The electrode compartment may contain line pressure. Reomoving the cover before depressurizing may result in death or serious injury.
2. Perform flowtube electrical resistance tests. Confirm the resistance reading between coil ground (ground symbol) and coil (1 or 2) is infinity. Confirm the resistance reading between electrode ground (17) and an electrode (18 or 19) is greater than 2 kohms and rises. For more detailed information, consult the flowtube product manual.
3. Verify flowtube is electrically connected to the process with grounding electrode, grounding rings with grounding straps, or lining protector with grounding straps.
4. Verify transmitter electronics with Model 8714 reference standard. The dial on the 8714 should be set at 9.1 m/s (30 ft/sec). The transmitter should be set up with the nominal flowtube calibration number (1000015010000000) and 5 Hz coil drive frequency.
5. Properly connect the wiring between the flowtube and the transmitter on the flowtube. Corresponding terminal block numbers in the flowtube and transmitter must be connected.
To turn off electrode signal fault detection, go to the diagnostic screen in the transducer block properties.
Failed
Maint
Advisory
Help
Coil Drive Open Circuit
Electrode Signal Fault
Grounding Wiring Fault

FIG. 24

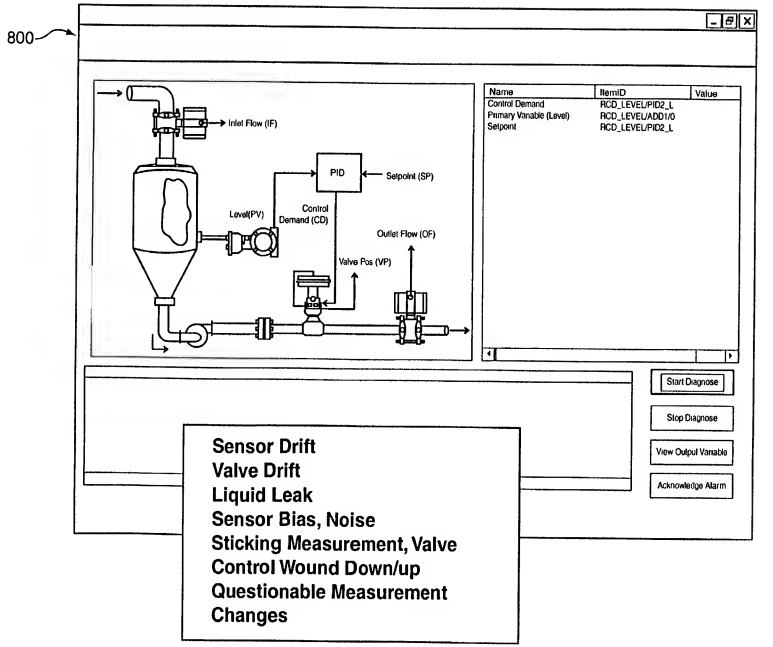
800
Inlet Flow (IF)
PID
Setpoint (SP)
Level(PV)
Control Demand (CD)
Outlet Flow (OF)
Valve Pos (VP)
Name
ItemID
Value
Control Demand
RCD_LEVEL/PID2_L
Primary Variable (Level)
RCD_LEVEL/ADD1/0
Setpoint
RCD_LEVEL/PID2_L
Start Diagnose
Stop Diagnose
View Output Variable
Acknowledge Alarm
Sensor Drift
Valve Drift
Liquid Leak
Sensor Bias, Noise
Sticking Measurement, Valve
Control Wound Down/up
Questionable Measurement
Changes

FIG. 25

20T0E0" 80E78007

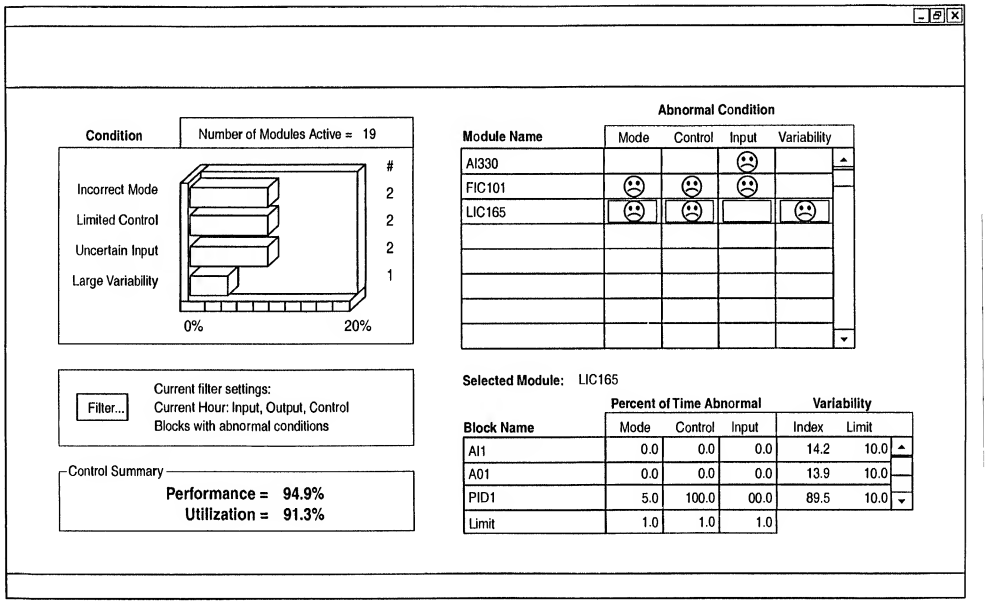

FIG. 26

Inventor(s): Eryurek, et al.
Figure No(s).: 26
Sheet No.: 24 of 29

20T0E0*80E780DT

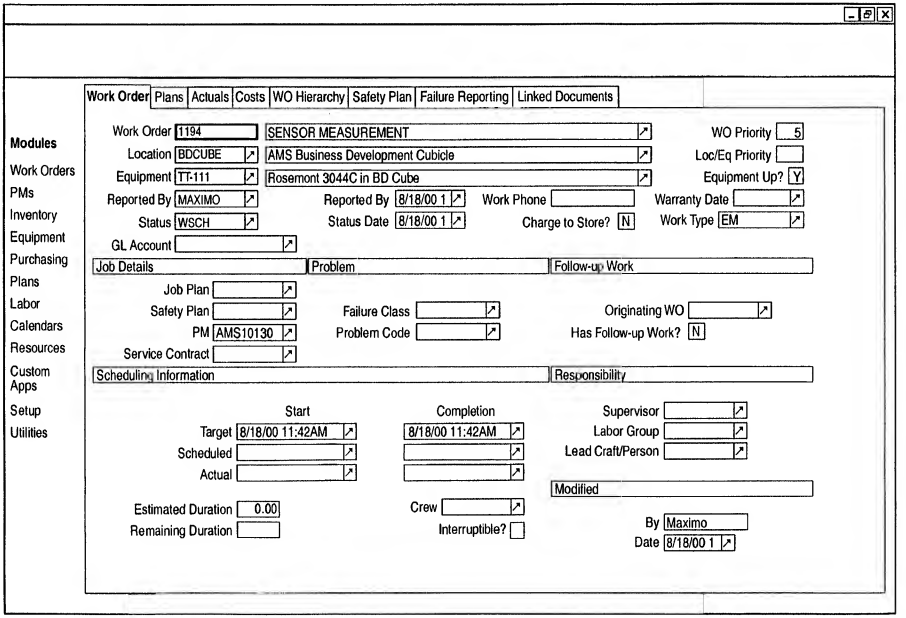

FIG. 27

Inventor(s): Eryurek, et al.
Figure No(s).: 27
Sheet No.: 25 of 29

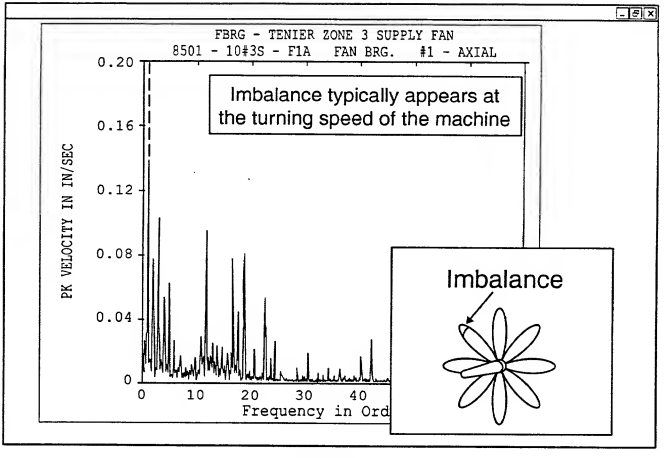

FIG. 28

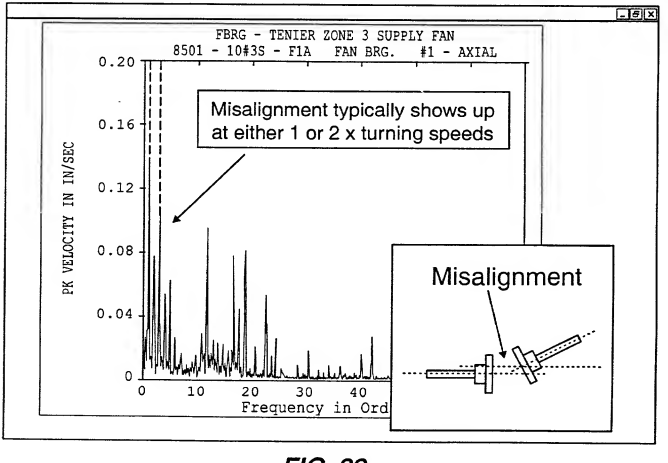

FIG. 29

20130308.0018

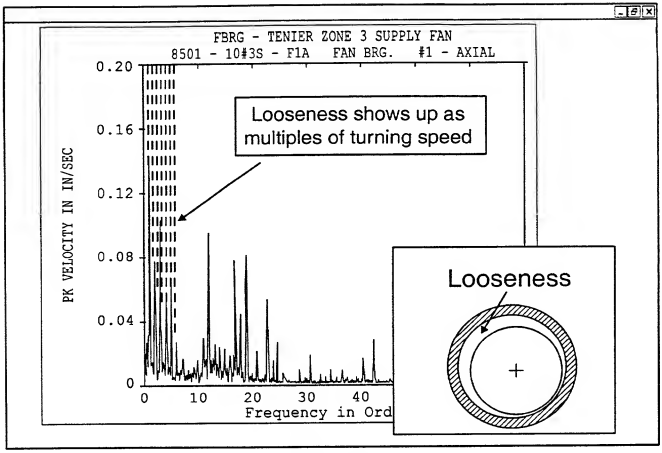

FIG. 30

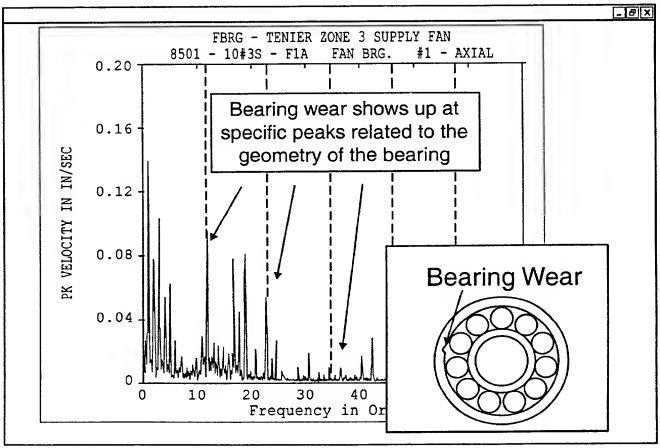

FIG. 31

10087308-030102

FIG. 32

20050108-0308/8001

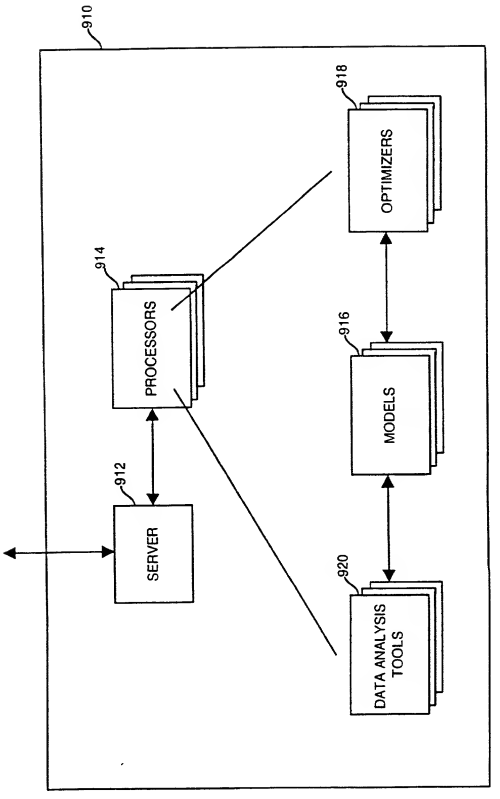

FIG. 33

20100308.030102